BRUHAT BANGALORE MAHANAGARA PALIKE

Yelahankat Zone, Bangalore

MEASUREMENT SHEET

POST MEASUREMENT

Name of Work:	Impreovements to roads and drains in Tatanagaa, Devinagara and surrounding areas in ward no. 08, kodigehalli
Estimated Cost:	Rs. 100.00 Lakhs
Job Code / Indent No	008-22-000003
Head of Account:	P-3075 Special comprehensive development works
Name of Agency:	KM Nagesh
PMC:	
Amount put to Tender:	Rs. 87,53,33.75
Amount Tender Price:	Rs. 87,53,33.75
Percentage:	SR
Ref:	BBMP/EE/BTP/WO/60/2021-22 dated 18.03.2022
Period of Completion:	120 days

Post-Measurements Recorded on:		31.05.2022								
Sl. No.	Description	Unit	No	L (m)	B1 (m)	B2 (m)	D/H (m)	Qty.	Quoted rate	Amount
1	Earthwork excavation by manual means for roads, drains and similar works in ordinary soil excavated surface levelled and sides neatly dressed, the disposed earth to be levelled neartly after breaking of clods complete as per specifications.									
	Quantity vide Pre measurement recorded in E-MB in page No. 2 (1-2)									
		cum					Total	994.21		
		cum					Lim to	952.44	215.28	205041.28
2	Providing and laying in position plain cement concrete of mix 1:3:6 with OPC cement @ 220kgs, with 40mm and down size graded granite metal coarse aggregates @0.892cum and fine aggregates @ 0.465cum machine mixed, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation including cost of all materials, labour, HOM of machinery, curing complete as per specifications.									
	Quantity vide Pre measurement recorded in E-MB in page No. 2									
		cum					Total	129.34		
		cum					Lim to	126.78	5989.25	759317.11
3	Providing TMT/ Fe 500 steel reinforcement for R.C.C work including straightening, cutting, bending, hooking, placing in position, lapping and / or welding wherever required, tying with binding wire and anchoring to the adjoining members wherever necessary complete as per design (laps, hooks and wastage shall not be measured and paid) cost of materials, labour, HOM complete as per specifications.									
	Quantity vide Pre measurement recorded in E-MB in page No. 4					3406				
		MT					Total	16.19		
		MT					Lim to	15.81	90596.08	1432324.02

Contractor

Assistant Engineer
Ward no. 08

Assistant Executive Engineer
Nagara Sub Division
Kodigehalli Sub Division

Sl. No.	Description	Unit	No	L (m)	B1 (m)	B2 (m)	D/H (m)	Qty.	Quoted rate	Amount
7	Providing and laying in position plain cement concrete of mix 1:2:4 with cement @ 240kgs, with 20mm and down size graded granite metal coarse aggregates @ 0.69 cum and fine aggregtes @ 0.459cum, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation, plinth and cills, ncluding cost of all materials, labour, HOM of machinery, curing complete as per specifications.									
	Quantity vide Pre measurement recorded in E-MB in page No. 4									
		cum					Total	7.58		
		cum					Lim to	7.40	6274.89	46434.18
10	Excavation of road work in all types of soil by mechanical means including cutting and loading to tippers, trimming bottom and side slopes in accordance with requirement of lines, grade and cross section and transportation with a lead of 5km and complete as per specifications.									
	Quantity vide Pre measurement recorded in E-MB in page No. 5									
		cum					Total	188.64		
		cum					Lim to	188.25	63.94	12036.70
11	Compaction of original ground with maximum of 6 passes of 8 to 10 tonnes power roller including filling in depression occuring during rolling including cost of all labour, HOM of machinery complete as per specifications.									
	Quantity vide Pre measurement recorded in E-MB in page No. 5									
		sqm					Total	628.80		
		sqm					Lim to	627.50	6.36	3990.90
12	Providing, laying, spreading and compacting crushed stone aggregates of granite / trap / basalt to wet mix macadam specifications including pre mixing the material with water at OMC in mechanical mix plant carriage of mixed method of tipper to site, laying in uniform layers with paver in sub-base/base course on well prepared surface and compacting with vibratory roller to achieve the desired density complete as per specifications.									
	Quantity vide Pre measurement recorded in E-MB in page No. 5									
		cum					Total	94.31		
		cum					Lim to	94.12	2001.28	188360.47
14	Providing and applying primer coat with S.S. bitumen emulsion on prepared surface of granular base such as WMM including cleaning of road surface and spraying primer at the rate of 0.60 kg / sqm using mechanical means complete as per specifications.									
	Quantity vide Pre measurement recorded in E-MB in page No. 6									
		sqm					Total	944.30		
		sqm					Lim to	627.50	33.92	21284.80

Contractor

Assistant Engineer
Ward no. 22

Assistant Executive Engineer
Uttarahalli Sub Division

Assistant Executive Engineer
Kodichikkanahalli Sub Division
BBMP, Bangalore

Sl. No.	Description	Unit	No	L (m)	B1 (m)	B2 (m)	D/H (m)	Qty.	Quoted rate	Amount
15	Providing and laying bituminous macadam on prepared surface with crushed coarse aggregates as per design mix formula for base / binding course including loading of aggregates with F.E. loader, hot mixing of stone aggregates and bitumen in hot mix plant, transporting the mixd material in tipper to paver and laying mixed materials with paver finisher to the required level and grade, rolling by power roller to achieve the desired density, but excluding cost of primer / tack coat including lead, lift and cost of all materials, labour, HOM of machineries complete as per specifications. MORTH /Chapter 5 - using 40/60 TPH capacity H.M.P. with Mechanical paver Gr-II (50 mm to 75 mm) with 3.3 % VG-30 Bitumen									
	Quantity vide Pre measurement recorded in E-MB in page No. 7					6+07				
		cum					Total	55.30		
		cum					Lim to	49.08	8545.72	419423.93
13	Cleaning the existing black topped surface with brooms, soft brushes and finally dusting with old gunny bags and / or compressed air to receive bituminous treatment including cost of all materials, labour, HOM of machineries complete as per specifications.									
	Quantity vide Pre measurement recorded in E-MB in page No. 7									
		sqm					Total	3082.65		
		sqm					Lim to	2725.00	5.30	14442.50
16	Providing and applying tack coat using 80/100 grade bitumen (VG10) on the prepared black topped surfaces at 2.5 kg per 10 sqm, heating bitumen in boiler fitted with spray set (excluding cleaning of road surface) including cost of all material, labour HOM of machineries complete as per specifications.									
	Quantity vide Pre measurement recorded in E-MB in page No. 8									
		sqm					Total	3082.65		
		sqm					Lim to	3079.00	12.72	39164.88
4	Providing laying palin / reinforced cement concrete for Box Drain walls of thicknes 10cm to 20 cm including cenmtering shuttering form work etc. complete as per approved drawiong and design MORTH Specification No. 1500,1700,2200 PCC M 20 Grade upto 0.75 m height using concrete mixture									
	For RCC drain									
	bottom portion									
	11th main road Tatanagara right	cum	1	10.00	0.90		0.15	1.35		
	Right side contd after culvert	cum	3	30.00	0.90		0.15	12.15		
		cum	1	12.00	0.90		0.15	1.62		
	Left side upto culvert	cum	2	30.00	1.10		0.15	9.90		
		cum	1	17.00	1.10		0.15	2.80		
	Beyond culvert	cum	1	30.00	0.90		0.15	4.05		
		cum	1	20.00	0.90		0.15	2.70		
	1st main road from 5th crs right s	cum	1	32.00	0.90		0.15	4.32		
	Beyond 6th A crs	cum	3	30.00	0.90		0.15	12.15		
		cum	1	18.00	0.90		0.15	2.43		
	1st main left side	cum	1	32.00	0.90		0.15	4.32		
	Beyond 6th A crs	cum	3	30.00	0.90		0.15	12.15		
		cum	1	18.00	0.90		0.15	2.43		

7237

Contractor

Assistant Engineer
Ward no. 22

Assistant Executive Engineer
JC Nagara Sub Division
BBMP, Bangalore

Assistant Executive Engineer
Kodigehalli Sub Division
BBMP, Bangalore

Sl. No.	Description	Unit	No	L (m)	B1 (m)	B2 (m)	D/H (m)	Qty.	Quoted rate	Amount
	Adj kodava cuisine road-left	cum	3	30.00	0.90		0.15	12.15		
		cum	1	10.00	0.90		0.15	1.35		
	Adj kodava cuisine road-right	cum	3	30.00	0.90		0.15	12.15		
		cum	1	10.00	0.90		0.15	1.35		
	culverts	cum	0	0.00	0.00		0.00	0.00		
	11th main right side	cum	1	8.70	1.20		0.20	2.08		
	11th main left side	cum	1	8.00	1.20		0.20	1.92		
	6th A cross, 1st main road	cum	1	11.00	1.20		0.20	2.64		
	6th A cross, 1st main road	cum	1	10.00	1.20		0.20	2.40		
	5th main road	cum	1	9.00	1.20		0.20	2.16		
	Side walls	0	0	0.00	0.00		0.00	0.00		
	11th main road Tatanagara right	cum	2	10.00	0.15		0.75	2.25		
	Right side contd after culvert	cum	6	30.00	0.15		0.75	20.25		
		cum	2	12.00	0.15		0.75	2.70		
	Left side upto culvert	cum	4	30.00	0.15		1.20	21.60		
		cum	2	17.00	0.15		1.20	6.12		
	Beyond culvert	cum	2	30.00	0.15		0.75	6.75		
		cum	2	20.00	0.15		0.75	4.50		
	1st main road from 5th crs right s	cum	2	32.00	0.15		0.75	7.20		
	Beyond 6th A crs	cum	6	30.00	0.15		0.75	20.25		
		cum	2	18.00	0.15		0.75	4.05		
	1st main left side	cum	2	32.00	0.15		0.75	7.20		
	Beyond 6th A crs	cum	6	30.00	0.15		0.75	20.25		
		cum	2	18.00	0.15		0.75	4.05		
	Adj kodava cuisine road-left	cum	6	30.00	0.15		0.75	20.25		
		cum	2	10.00	0.15		0.75	2.25		
	Adj kodava cuisine road-right	cum	6	30.00	0.15		0.75	20.25		
		cum	2	10.00	0.15		0.75	2.25		
	culverts							0.00		
	11th main right side	cum	2	8.70	0.20		0.90	3.13		
	11th main left side	cum	2	8.00	0.20		0.90	2.88		
	6th A cross, 1st main road	cum	2	11.00	0.20		0.90	3.96		
	6th A cross, 1st main road	cum	2	10.00	0.20		0.90	3.60		
	5th main road	cum	2	9.00	0.20		0.90	3.24	227.18	
	Total						Total	299.55		
							Lim to	280.91	7729.67	2171341.59
5	Supplying and fixing precast reinforced concrete slab 10 cm thick of M20 using 29 mm and downsize graded metal using reinforcements 10mm dia at 150mm c/c bothways cost, transportation, hire charges of machinery, machine cutting, the vertical face to get plain even surface etc., compelte with all leads and lifts conveyance charges, labour charges, inclusive of all cost									
	11th main road Tatanagara right	Sqm	17	0.60	0.90			9.18		
	Right side contd after culvert	Sqm	150	0.60	0.90			81.00		
		Sqm	20	0.60	0.90			10.80		
	Left side upto culvert	Sqm	100	0.60	1.20			72.00		

172.98

Contractor

Assistant Engineer
Ward no. 22

Assistant Executive Engineer
I/C Nadaprabhu Sub Division

Assistant Executive Engineer
Kodigehalli Sub Division
BBMP, Bangalore

Sl. No.	Description	Unit	No	L (m)	B1 (m)	B2 (m)	D/H (m)	Qty.	Quoted rate	Amount
		Sqm	29	0.60	1.20			20.88		
	Beyond culvert	Sqm	50	0.60	0.90			27.00		
		Sqm	34	0.60	0.90			18.36		
	1st main road from 5th crs right s	Sqm	54	0.60	0.90			29.16		
	Beyond 6th A crs	Sqm	150	0.60	0.90			81.00		
		Sqm	30	0.60	0.90			16.20		
	1st main left side	Sqm	54	0.60	0.90			29.16		
	Beyond 6th A crs	Sqm	150	0.60	0.90			81.00		
		Sqm	30	0.60	0.90			16.20		
	Adj kodava cuisine road-left	Sqm	150	0.60	0.90			81.00		
		Sqm	17	0.60	0.90			9.18		
	Adj kodava cuisine road-right	Sqm	150	0.60	0.90			81.00		
		Sqm	17	0.60	0.90			9.18		
	missing slabs	Sqm	15	0.60	0.90			8.10		
							Total	680.40		
							Lim to	679.01	2337.00	1586846.37
6	Providing and laying precast drain cover slab of 250 mm thick of M20 using 20 mm and downsize graded metal using reinforcements including form work, lift charges, curing and concrete finished surface on both sides etc., complete as per drawing and directions of Engineer in charge									
	culverts									
	11th main right side	Sqm	15	0.60	1.20			10.80		
	11th main left side	Sqm	13	0.60	1.20			9.36		
	6th A cross, 1st main road	Sqm	18	0.60	1.20			12.96		
	6th A cross, 1st main road	Sqm	17	0.60	1.20			12.24		
	5th main road	Sqm	15	0.60	1.20			10.80		
							Total	56.16		
							Lim to	38.88	5418	210651.84
8	Providing and fixing pre cast solid cement concrete kerb stones made out of CC 1:2:4 with top and bottom width 114 and 165 mm respectively, 400mm high and 450mm in length finished with CM 1:3 plastering and finishing cutting including formwork, curing, including cost of materials, labour charges of machinery, loading and unloading, lead and lift, transportation ete.,complete									
	kerb stones									
	11th main road Tatanagara right side from swd	No.	23					23.00		
	Right side contd after culvert	No.	200					200.00		
		No.	27					27.00		
	Left side upto culvert	No.	134					134.00		
		No.	38					38.00		
	Beyond culvert	No.	67					67.00		
		No.	45					45.00		
	1st main road from 5th crs right side upto 6th A crs	No.	72					72.00		
	Beyond 6th A crs	No.	200					200.00		

Contractor

Assistant Engineer
Ward no.-28

Assistant Executive Engineer
JC Nagara Sub Division

Assistant Executive Engineer
Kodigehalli Sub Division
BBMP, Bangalore.

Sl. No.	Description	Unit	No	L (m)	B1 (m)	B2 (m)	D/H (m)	Qty.	Quoted rate	Amount
		No.	40					40.00	40.00	
							Total	846.00		
							Lim to	822.00	432.48	355498.56
9	Providing and applying painting in two coats with plastic emulsion paint of approved brand on wall surface to give an even approved shade after thoroughly brushing the surface, free from mortar drops and other foreign matter including preparing the surface even and sand paper smooth, cost of materials, labour, complete as per specifications. - with primer									
	11th main road Tatanagara right side from swd	Sqm	23	0.45				3.62		
	Right side contd after culvert	Sqm	200	0.45				31.50		
		Sqm	27	0.45				4.25		
	Left side upto culvert	Sqm	134	0.45				21.10		
		Sqm	38	0.45				5.98		
	Beyond culvert	Sqm	67	0.45				10.55		
		Sqm	45	0.45				7.08		
	1st main road from 5th crs right side upto 6th A crs	Sqm	72	0.45				11.34		
	Beyond 6th A crs	Sqm	200	0.45				31.50		
		Sqm	40	0.45				6.30		
		Sqm					Total	133.22		12350.48
							Lim to	129.47	95.40	12351.43
								129.46		
17	Providing and laying bituminous concrete 40 mm thick with hot mix plant, using crushed aggregates of specified grading, premixed with bituminous binder and filler, transporting the hot mix to work site, laying with a paver finisher to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MORTH specification clause No. 500.9 complete in all respects complete as per specifications. MORTH Specification No. 509 - using40/60 TPH capacity H.M.P. with Mechanical Paver Gr-II (30 mm to 45 mm) with 6 % VG-30 Bitumen									
	11 main road from swd 9th crs road	Cum	1	30.00	7.20	6.30	0.04	8.10		
		Cum	1	30.00	6.30	5.20	0.04	6.90		
		Cum	1	30.00	5.20	5.00	0.04	6.12		
		Cum	1	18.00	5.00	6.20	0.04	4.03		
		Cum	1	12.00	6.20	6.20	0.04	2.97		
		Cum	1	24.00	6.20	6.30	0.04	6.00		
	5th crs from 5th main to 6th main	Cum	1	38.50	6.80	7.00	0.04	10.62		
	5th cross from 6th main to 11th main road	Cum	1	30.00	6.30	6.10	0.04	7.44		
		Cum	1	30.00	6.10	5.60	0.04	7.02		
		Cum	1	30.00	5.60	6.20	0.04	7.08		
		Cum	1	30.00	6.20	6.60	0.04	7.68		
		Cum	1	30.00	6.60	5.40	0.04	7.20		
		Cum	1	30.00	5.40	6.30	0.04	7.02		
		Cum	1	30.00	6.30	4.90	0.04	6.72		
								94.90		

Contractor

Assistant Engineer
Ward no. 22

Assistant Executive Engineer
JC Nagara Sub Division
BBMP, Bangalore

Sl. No.	Description	Unit	No	L (m)	B1 (m)	B2 (m)	D/H (m)	Qty.	Quoted rate	Amount
		Cum	1	30.00	4.90	5.40	0.04	6.18		
	cross road on kote road	Cum	1	30.00	3.30	3.30	0.04	3.96		
		Cum	1	20.00	3.30	3.20	0.04	2.60		
	kote road	Cum	1	30.00	4.50	4.60	0.04	5.46		
		Cum	1	30.00	4.60	4.50	0.04	5.46		
		Cum	1	26.00	4.50	4.60	0.04	4.73		
	Total						Total	123.29		
							Lim to	123.16	10001.10	1231735.47
18	Road Marking with Hot Applied Thermoplastic Compound with Reflectrising Glass Beads on Bituminous Surface:- Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorising glass beads at 250 gms per sqm area, thickness of 2.5 mm is exclusive of surface applied glass beads as per IRC:35. The finished surface to be level, uniform and free from streaks and holes complete as per specifications.									
	11 main road from swd 9th crs road	Sqm	2.5	30.00	0.10			7.50		
		Sqm	2.5	30.00	0.10			7.50		
		Sqm	2.5	30.00	0.10			7.50		
		Sqm	2.5	18.00	0.10			4.50		
		Sqm	2.5	12.00	0.10			3.00		
		Sqm	2.5	24.00	0.10			6.00		
	5th crs from 5th main to 6th main	Sqm	2.5	38.50	0.10			9.62		
	5th cross from 6th main to 11th main road	Sqm	2.5	30.00	0.10			7.50		
		Sqm	2.5	30.00	0.10			7.50		
		Sqm	2.5	30.00	0.10			7.50		
		Sqm	2.5	30.00	0.10			7.50		
		Sqm	2.5	30.00	0.10			7.50		
		Sqm	2.5	30.00	0.10			7.50		
		Sqm	2.5	30.00	0.10			7.50		
		Sqm	2.5	30.00	0.10			7.50		
							Total	105.62		
							Lim to	94.75	454.74	43086.61
	Sub Total-1								8753331.69	8753332.64
							Round off		8750000.00	
	Add GST charges @ 12%								1050000.00	1050399.91
							Total			
	Total Rs								9800000.00	9803732.55

Contractor

Assistant Engineer
Ward no. 22

Assistant Executive Engineer
JC Nagara Sub Division

Assistant Executive Engineer